



[4910-13]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0339; Directorate Identifier 2011-SW-051-AD]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Eurocopter France Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Eurocopter France (Eurocopter) Model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318 C-ALOUETTE ASTAZOU helicopters. This proposed AD was prompted by incorrect positioning of the roller drive pocket recesses on the tail rotor drive shaft free-wheel cage, which caused a pilot to experience a heavy jerk in the yaw control during in-flight autorotation training. This condition, if not corrected, could lead to a temporary loss of tail rotor drive and subsequent loss of control of the helicopter.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Rao Edupuganti, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5110, e-mail [rao.edupuganti@faa.gov](mailto:rao.edupuganti@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued AD No. 2011-0143, dated July 26, 2011 (AD 2011-0143), to correct an unsafe condition for the Eurocopter model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318 C-ALOUETTE ASTAZOU helicopters. EASA advises that

during in-flight autorotation training, a pilot experienced a heavy jerk in the yaw control at the time of resynchronization. The free-wheel assembly of the helicopter had been replaced shortly before this flight. Internal inspection of the free-wheel assembly revealed incorrect positioning of the roller drive pocket recesses on the free-wheel cage. The subsequent off-setting restricts the travel of the roller on its ramp and can cause, under high torque conditions, free-wheel slippage. This condition, if not corrected, could result in a temporary loss of rotor drive, jeopardizing flight safety, especially in phases of flight close to the ground.

### **FAA's Determination**

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of these same type designs.

### **Related Service Information**

Eurocopter has issued Alert Service Bulletin (ASB) No. Alouette-65.149, Revision 0, dated March 23, 2011 (ASB 65.149), for model 3130, 313B, 3180, 318B, 318C, 3160, 316B, 316C, and 319B helicopters; and ASB No. SA315-65.48, Revision 0, dated March 23, 2011 (ASB 65.48), for model 315B helicopters, which specify removing and disassembling the free-wheel assembly in order to check the free-wheel cage for correct positioning. EASA classified these ASBs as mandatory and issued AD 2011-0143 to ensure the continued airworthiness of these helicopters.

### **Proposed AD Requirements**

This proposed AD would require, within 110 hours time-in-service (TIS), inspecting the cage of the free-wheel assembly for incorrect design and, if a free-wheel

cage of incorrect design is installed, before further flight, replacing the affected free-wheel cage with an airworthy free-wheel cage. This proposed AD would also prohibit installation of an affected free-wheel cage on any helicopter.

#### **Differences between this Proposed AD and the EASA AD**

The EASA AD requires compliance within 110 flight hours or 5 months, whichever occurs first. This proposed AD does not impose a calendar time requirement.

#### **Costs of Compliance**

We estimate that this proposed AD would affect 63 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD.

- Inspecting the free-wheel cage assembly will require 8 work-hours at an average labor rate of \$85 per hour, and required parts will cost \$13, for a total cost per helicopter of \$693, and a total cost to the U.S. operator fleet of \$43,659.
- Modifying any affected free-wheel cage assembly will require 8 work hours and required parts will cost \$1,986, for a total cost per helicopter of \$2,666.

#### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new Airworthiness Directive (AD):

**EUROCOPTER FRANCE:** Docket No. FAA-2012-0339; Directorate Identifier 2011-SW-051-AD.

#### **(a) Applicability.**

This AD applies to Model SA.315B Alouette III, SE.3160 Alouette III, SA.316B Alouette III, SA.316C Alouette III, SA.319B Alouette III, SA 3180-ALOUETTE ASTAZOU, SA 318B-ALOUETTE ASTAZOU, and SA 318 C-ALOUETTE ASTAZOU helicopters with a free-wheel cage, part number (P/N) 3130S60-10-003 installed, certificated in any category.

#### **(b) Unsafe Condition.**

This AD defines the unsafe condition as incorrect positioning of the roller drive pocket recesses on the cage of the tail-rotor driveshaft free-wheel assembly. This condition could result in loss of tail rotor drive and subsequent loss of control of the helicopter.

**(c) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless accomplished previously.

**(d) Required Actions.**

Within 110 hours time-in-service (TIS):

(1) Remove the free-wheel assembly and pull out the free-wheel driven head.

(2) Inspect the free-wheel cage for correct alignment of the roller drive pocket recesses in accordance with Figure 2 of Eurocopter Alert Service Bulletin (ASB) No. SA315-65.48, Revision 0 or Eurocopter ASB No. ALOUETTE-65-149, Revision 0, both dated March 23, 2011, as appropriate for your model helicopter.

(3) If the right edge of the tab is in line with the right edge of the pocket recess, before further flight, replace the free-wheel cage with an airworthy free-wheel cage.

(4) Do not install an affected free-wheel assembly on any helicopter, unless the cage has passed inspection in accordance with paragraph (d)(2) through (d)(3) of this AD.

**(e) Alternative Methods of Compliance (AMOC).**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Rao Edupuganti, Aerospace Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5110, e-mail [rao.edupuganti@faa.gov](mailto:rao.edupuganti@faa.gov).

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate

holding district office before operating any aircraft complying with this AD through an AMOC.

**(f) Additional Information.**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2011-0143, dated July 26, 2011.

**(g) Subject.**

Joint Aircraft Service Component (JASC) Code: 6700: Tail Rotor Drive System.  
Issued in Fort Worth, Texas, on March 20, 2012.

Kim Smith,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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